

Issuance Date: October 20, 1999  
Effective Date: November 1, 1999  
Expiration Date: November 1, 2004  
First Amendment: March 31, 2000

**AIR OPERATING PERMIT NO. 000025-6**

(Filename FJCM\_09\_99\_part1.doc and FJCM\_09\_99\_part2.doc)

In compliance with the provisions of The State of Washington  
Clean Air Act Chapter 70.94 Revised Code of Washington

**FORT JAMES CAMAS MILL  
Camas, Washington**

is authorized to operate in accordance  
with the terms and conditions  
of this permit.

Issued by:

State of Washington  
DEPARTMENT OF ECOLOGY  
300 Desmond Drive  
P.O. Box 47600  
Olympia, Washington 98504-7600

---

Carol Kraege, P.E.  
Industrial Section Supervisor  
Solid Waste & Financial Assistance Program

---

Teddy V. Le, P.E.  
Environmental Engineer

## Table of Contents

INTRODUCTION AND LEGAL AUTHORITY .....	3
EMISSION UNIT SPECIFIC REQUIREMENTS .....	4
A.    No. 3 Kraft Recovery Furnace .....	4
B.    No. 4 Kraft Recovery Furnace .....	6
C.    Bubble Emissions for No. 3 and No. 4 Kraft Recovery Furnaces .....	8
D.    No. 3 Smelt Dissolver .....	9
E.    No. 4 Smelt Dissolver .....	10
F.    Bubble Emissions for No. 3 and No. 4 Smelt Dissolvers .....	11
G.    No. 4 Lime Kiln .....	12
H.    Magnefite Recovery Furnace/Acid Plant.....	14
I.    No. 3 Power Boiler .....	16
J.    No. 4 Power Boiler .....	17
K.    Kraft Digesters .....	18
L.    White Liquor Scrubbers on K3/K4/R8 and K5 Bleach Plants.....	20
M.    Will II Sheeter.....	21
N.    Screen Fines Truck Bin Cyclone .....	22
O.    Chip Packing Cyclone .....	23
P.    Magnefite Chip/Sawdust Truck Dump Conveyor .....	23
Q.    K4 Fines Blow Line .....	24
R.    Printing Operation.....	25
FACILITY-WIDE GENERAL REQUIREMENTS .....	26
MONITORING, RECORDKEEPING & REPORTING .....	29
STANDARD TERMS AND CONDITIONS .....	33
PERMIT SHIELD.....	35
APPENDIX A -- Permit Shield and Inapplicable Requirements .....	36
APPENDIX B -- Compliance Schedule .....	39
APPENDIX C -- Algorithms for Emissions Calculations .....	44
APPENDIX D -- Applicable Requirements Consolidated to Single Permit Terms .....	47
APPENDIX E -- Glossary of Terms Used in the Air Operating Permit.....	53
APPENDIX F -- Existing Orders and Permits.....	54

## **INTRODUCTION AND LEGAL AUTHORITY**

This Air Operating Permit is authorized under the Operating Permit Regulation, Chapter 173-401 WAC. The provisions of this permit describe the emissions limitations, operating requirements, monitoring and recordkeeping requirements, and reporting frequencies for the permitted source.

Fort James Camas Mill (Fort James) requires a Title V Air Operating Permit because it emits or has the potential to emit, one hundred tons per year or more of one or more air pollutants. [WAC 173-401-300(1).]

During the drafting of this permit, Ecology has attempted to incorporate requirements using the exact language of the law, regulation, or order. Where there is a difference in language, this difference is presented in this permit only for clarification of the underlying requirement. The legal requirement remains the underlying requirement. Any conflict between the permit and an underlying requirement that is not acknowledged in this permit or its Support Document, nor is addressed in past orders or permits referenced in this permit or its Support Document, will be resolved by referring to the underlying requirement. Unless otherwise stated, the effective date of referenced regulations or statutes is that of the provision in effect on the date of permit issuance. Compliance with underlying requirements shall be demonstrated using the methods specified in this permit or the Support Document. Permittee shall submit a report of compliance certification of the terms and conditions contained in this permit as required in the General Condition 37, including certification of compliance with all applicable requirements identified in Appendix D.

The Title V Air Operating Permit consists of all parts of this assembled document including its Appendices and Footnotes, but does not include the accompanying Support Document, nor the Title V permit application materials submitted by Fort James nor any other past orders or permits.

The definition of terms contained in WAC 173-401-200, and as defined in all referenced regulations, apply to this permit unless otherwise defined in the permit.

## EMISSION UNIT SPECIFIC REQUIREMENTS [WAC 173-401-600]

The emission units covered by Conditions A through R are subject to the following emission limits. General requirements that apply to monitoring, recordkeeping and reporting for these limits are in the Facility-Wide section of this permit. Monitoring and reporting requirements are requirements that the Permittee uses to determine compliance and are specific to each limit are listed in the emission unit specific tables, and should be read in conjunction with the general requirements. Condition 19 of the Facility-Wide Requirements sets forth the requirements that Fort James must fulfill prior to being eligible for a reduction in the source test allowance. The most restrictive limit is identified hereon. Refer to Appendix D for a comparison of multiple applicable requirements for a given emission unit. Unless specified otherwise, the basis of authority for the type and frequency of monitoring imposed in conditions A through R is WAC 173-401-615.

Refer to Appendix C for emission estimate algorithms. These algorithms set forth the calculation method for these emission limits that the required Reference Method itself does not yield a direct emission measurement. The Permittee may use an equivalent method with written approval from Ecology.

### A. No. 3 Kraft Recovery Furnace

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
A.1	PM <sub>10</sub>	0.033 gr/dscf @ 8% O <sub>2</sub> (average of 3 one-hour runs)	Sample monthly using EPA Method 5 as prescribed in 40 CFR Part 60 (July 1, 1998) or a test method approved in writing by Ecology. Report test results in the monthly report. The Permittee shall comply with Condition A.6 for minimum O&M requirements intended to indicate compliance with the particulate limit.	WAC 173-405-(10) for the O&M requirements PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 1
A.2	Opacity	Average 20% for more than 6 consecutive minutes in any 60-minute period.	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference test method or a test method approved in writing by Ecology. The Permittee shall comply with Condition A.6 for opacity monitoring and reporting requirements.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 2

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
A.3	SO <sub>2</sub>	10 ppm @ 8% O <sub>2</sub> , 24-hour average.	EPA Method 6 or 6C as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Monitor monthly using an approved CEM that conforms to 40 CFR 60 (March 26, 1987), App. B, Perf. Spec. 2, and App. F. The Permittee shall monitor continuously an hourly average of scrubbing liquid pH at a minimum of 7 through the first stage of scrubber. Records of the hourly average for the pH will be maintained. Whenever the hourly average pH is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 3
A.4	NO <sub>x</sub>	1.3 lbs/ton of black liquor solids fired	EPA Method 7, 7B, or 7E as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. NO <sub>x</sub> value is calculated using a combination of mill-specific emission factors and actual emissions from previous stack test results.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 4
A.5	TRS	5 ppmvd @ 8% O <sub>2</sub> , 12-hour average.	EPA Method 16 or 16A as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (March 26, 1987), App. B, Perf. Spec. 5, and App. F. If the total number of contiguous periods of excess emissions in a quarter is less than one percent of the total number of operating hours (excluding periods of startup, shutdown, or malfunction) during the quarter, the excess emissions do not constitute a violation of this requirement. Report excursions in the monthly report.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 7

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
A.6 Operation	Minimum operating condition.	Monitor scrubbing liquid continuously as a performance indicator. The hourly average of the pressure drop through the wet scrubber will be at least 2 inches of water and the flow rate through the first stage of the scrubber will be at least 1900 gallons per minute. Records of the hourly average for these parameters will be maintained. Whenever the hourly average pressure drop or flow rate is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

## B. No. 4 Kraft Recovery Furnace

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
B.1 PM <sub>10</sub>	0.033 gr/dscf @ 8% O <sub>2</sub> (average of 3 one-hour runs)	Sample monthly using EPA Method 5 as prescribed in 40 CFR Part 60 (July 1, 1998) or a test method approved in writing by Ecology. Report test results in the monthly report. The Permittee shall comply with Condition B.6 for minimum O&M requirements intended to indicate compliance with the particulate limit.	WAC 173-405-040(10) for the O&M requirements PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 1
B.2 Opacity	Average 20% for more than 6 consecutive minutes in any 60-minute period.	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference test method or a test method approved in writing by Ecology. The Permittee shall comply with Condition B.6 for opacity monitoring and reporting requirements.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 2

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
B.3	SO <sub>2</sub>	10 ppm @ 8% O <sub>2</sub> , 24-hour average.	EPA Method 6 or 6C as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Monitor monthly using an approved CEM that conforms to 40 CFR Part 60 (March 26, 1987), App. B, Perf. Spec. 2, and App. F. The Permittee shall monitor continuously an hourly average of scrubbing liquid pH at a minimum of 7 through the first stage of scrubber. Records of the hourly average for the pH will be maintained. Whenever the hourly average pH is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 3
B.4	NO <sub>x</sub>	1.5 lbs/ton of black liquor solids fired	EPA Method 7, 7B, or 7E as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. The NO <sub>x</sub> value is calculated using a combination of mill-specific emission factors and actual emissions from previous stack test results.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 4
B.5	TRS	5 ppmvd @ 8% O <sub>2</sub> , 12-hour average.	EPA Method 16 or 16A as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (March 26, 1987), App. B, Perf. Spec. 5 and App. F. If the total number of contiguous periods of excess emissions in a quarter is less than one percent of the total number of operating hours (excluding periods of startup, shutdown, or malfunction) during the quarter, the excess emissions do not constitute a violation of this requirement. Report excursions in the monthly report.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 7

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
B.6	Operation	Minimum operating condition.	Monitor scrubbing liquid continuously as a performance indicator. The hourly average of the pressure drop through the wet scrubber will be at least 1 inch of water and the flow rate through the first stage of the scrubber will be at least 2000 gallons per minute. Records of the hourly average for these parameters will be maintained. Whenever the hourly average pressure drop or flow rate is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

### C. Bubble Emissions for No. 3 and No. 4 Kraft Recovery Furnaces

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
C.1	PM <sub>10</sub>	The combined emissions from the recovery furnaces shall not exceed 328 tpy PM <sub>10</sub> .	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 1
C.2	SO <sub>2</sub>	The combined emissions from the recovery furnaces shall not exceed 46.2 tpy SO <sub>2</sub> .	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 3
C.3	NO <sub>x</sub>	The combined emissions from the recovery furnaces shall not exceed 609 tpy NO <sub>x</sub> .	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 4
C.4	CO	The combined emissions from the recovery furnaces shall not exceed 2,755 tpy CO.	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 5
C.5	VOC	The combined emissions from the recovery furnaces shall not exceed 219 tpy VOC.	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 6



	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
C.6	TRS	The combined emissions from the recovery furnaces shall not exceed 12.7 tpy TRS.	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 7

<sup>1</sup> Monitoring is required only when emission unit is operating.

## D. No. 3 Smelt Dissolver

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
D.1	PM <sub>10</sub>	0.12 lb/ton of black liquor solids (dry weight), hourly average (average of 3 one-hour runs).	Sample monthly using EPA Method 5. Report test results in the monthly report. The Permittee shall comply with Condition D.4 for O&M requirements.	60.282(a)(2)(i) of Subpart BB, 40 CFR Part 60 WAC 173-405-(10) for the O&M requirements PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 8
D.2	Opacity	Average 20% for more than 6 consecutive minutes in any 60-minute period.	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference test method or a test method approved in writing by Ecology. The Permittee shall comply with Condition D.4 for opacity monitoring and reporting requirements.	40 CFR § 60.11(c) PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 9
D.3	TRS	0.0168 lb/ton of black liquor solids on a daily average.	EPA Method 16A/6C as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method, or a test method approved in writing by Ecology. Report test results once per permit term. The Permittee shall comply with Condition D.4 for O&M requirements.	60.283(a)(4) of Subpart BB, 40 CFR Part 60 WAC 173-405-(10) for the O&M requirements PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 12
D.4	Operation	Minimum operating condition.	Monitor scrubbing liquid continuously as a performance indicator. The hourly average of the pressure drop through the wet scrubber will be at least 3 inches of water and the flow rate through the first stage of the scrubber will be at least 2000 gallons per minute at a minimum pH of 9. Records of the hourly average for these parameters will be maintained. Whenever the hourly average pressure drop or flow rate is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	40 CFR § 60.284(b)(2) WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

**E. No. 4 Smelt Dissolver**

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
E.1	PM <sub>10</sub>	0.12 lb/ton of black liquor solids (dry weight), hourly average (average of 3 one-hour runs).	Sample monthly using DOE Method 8 or a test method approved in writing by Ecology. Report test results in the monthly report. The Permittee shall comply with Condition E.4 for O&M requirements.	WAC 173-405-(10) for the O&M requirements PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 8
E.2	Opacity	Average 20% for more than 6 consecutive minutes in any 60-minute period.	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference test method or a test method approved in writing by Ecology. The Permittee shall comply with Condition E.4 for opacity monitoring and reporting requirements.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 9
E.3	TRS	0.0168 lb/ton of black liquor solids on a daily average.	EPA Method 16A/6C as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method, or a test method approved in writing by Ecology. Report test results once per permit term. The Permittee shall comply with Condition E.4 for O&M requirements.	WAC 173-405-(10) for the O&M requirements PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 12
E.4	Operation	Minimum operating condition.	Monitor scrubbing liquid continuously as a performance indicator. The hourly average of the pressure drop through the wet scrubber will be at least 7.5 inches of water and the flow rate through the first stage of the scrubber will be at least 2000 gallons per minute at a minimum pH of 9. Records of the hourly average for these parameters will be maintained. Whenever the hourly average pressure drop or flow rate is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

**F. Bubble Emissions for No. 3 and No. 4 Smelt Dissolvers**

<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
------------------	---	---	----------------------------------

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
F.1	PM <sub>10</sub>	The combined emissions from the dissolver vents shall not exceed 47.8 tpy PM <sub>10</sub> .	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 8
F.2	SO <sub>2</sub>	The combined emissions from the dissolver vents shall not exceed 28.0 tpy SO <sub>2</sub> .	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 10
F.3	VOC	The combined emissions from the dissolver vents shall not exceed 30.0 tpy VOC.	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 11
F.4	TRS	The combined emissions from the dissolver vents shall not exceed 5.4 tpy TRS.	Calculate monthly for the monthly report to report progress toward the annual limit.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 12

<sup>1</sup> Monitoring is required only when emission unit is operating.

## G. No. 4 Lime Kiln

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
G.1	PM <sub>10</sub>	0.13 gr/dscf @ 10% O <sub>2</sub> when firing with fuel oil, 0.067 gr/dscf @ 10% O <sub>2</sub> when firing with natural gas, hourly average (average of 3 one-hour runs).	EPA Method 5 is the reference method as prescribed in 40 CFR 60 (July 1, 1998). Sample monthly using DOE Method 8 or a test method approved in writing by Ecology. Report test results in the monthly report. The Permittee shall comply with Condition G.10 minimum O&M requirements intended to indicate compliance with the particulate limit. Report excursions in the monthly report.	60.282(a)(3)(i) of Subpart BB, 40 CFR Part 60 for basis of particulate limit when firing with fuel oil and natural gas. WAC 173-405-040(10) for the O&M requirement PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 13
G.2		88 tpy when firing with fuel oil, 44 tpy when firing with natural gas, annual average.	Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 13
G.3	Opacity	Average 35% for more than 6 consecutive minutes in any 60-minute period.	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference test method or a test method approved in writing by Ecology. The Permittee shall comply with Condition G.10 for opacity monitoring and reporting requirements.	60.11(b) of Subpart A, 40 CFR Part 40 WAC 173-405-040(6) PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 14

	<b>Parameter</b>	<b>Limit &amp; Averaging Period (shall not exceed)</b>	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
G.4	SO <sub>2</sub>	500 ppmvd @ 10% O <sub>2</sub> , hourly average.	EPA Method 6 or 6C as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Monitor monthly using an approved CEM that conforms to 40 CFR Part 60 (March 26, 1987), App. B, Perf. Spec. 2, and App. F. Report excursions in the monthly report.	40 CFR 60.7(c), (d), (e), (f), and (h) for excess emission notification WAC 173-405-040(11)(a) WAC 173-405-040(10) for the O&M requirement
G.5		36.1 tpy annual average.	Annual average is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 15
G.6	NO <sub>x</sub>	234 tpy annual average.	EPA Method 7, 7B, or 7E as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 16
G.7	CO	1798 tpy annual average.	EPA Method 10 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 17
G.8	VOC	45 tpy annual average.	EPA Method 25A as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 18
G.9	TRS	8 ppmvd @ 10% O <sub>2</sub> , 12-hour average.	EPA Method 16 or 16A as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (March 26, 1987), App. B, Perf. Spec. 5, and App. F. Report annually.	40 CFR 60.7(c), (d), (e), (f), and (h) for excess emission notification 60.283(a)(5) of Subpart BB, 40 CFR Part 60 PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 19
		2.5 tpy annual average	Average is calculated using an approved CEM that conforms to 40 CFR Part 60 (March 26, 1987), App. B, Perf. Spec. 5, and App. F. Report progress toward annual limit in the monthly report.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 19

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
G.10	Operation	Minimum operating condition.	Monitor scrubbing liquid continuously as a performance indicator. The hourly average of the pressure drop through the wet scrubber will be at least 24 inches of water and the flow rate through the first stage of the scrubber will be at least 380 gallons per minute. Records of the hourly average for these parameters will be maintained. Whenever the hourly average pressure drop or flow rate is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	60.284(b)(2) of Subpart BB, 40 CFR Part 60 WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

The following **state-only** requirement is not federally enforceable under the federal Clean Air Act:

G.11	TRS	80 ppmvd @ 10% O <sub>2</sub> for two consecutive hours in any one day.	DOE Method 12 is the reference method. Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (March 26, 1987), App. B, Perf. Spec. 5, and App. F. Report excursions in the monthly report.	WAC 173-405-040(3)(b)
------	-----	---	---	-----------------------

<sup>1</sup> Monitoring is required only when emission unit is operating.

## H. Magnesite Recovery Furnace/Acid Plant

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
H.1	PM <sub>10</sub>	0.090 gr/dscf @ 8% O <sub>2</sub> on an hourly average, 0.063 gr/dscf @ 8% O <sub>2</sub> on a 12-month rolling average (average of 3 one-hour runs).	Sample monthly using DOE Method 8 or a test method approved in writing by Ecology. Report test results in the monthly report. The Permittee shall comply with Condition H.10 minimum O&M requirements.	WAC 173-410-040(4) for the O&M requirement PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 20

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
H.2		144 tpy annual average of PM <sub>10</sub> . 160 tpy annual average of total suspended solids.	Annual average value is calculated using actual emissions from periodic stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 20
H.3	Opacity	Average 35% for more than 6 consecutive minutes in any 60-minute period.	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference test method or a test method approved in writing by Ecology. The Permittee shall comply with Condition H.10 for opacity monitoring and reporting requirements.	WAC 173-410-040(3) PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 21
H.4	SO <sub>2</sub>	10 ppmvd @ 7% O <sub>2</sub> , on a 24-hour average.	EPA Method 6 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method. Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (March 26, 1987), App. B, Perf. Spec. 2, and App. F. Report excursions in the monthly report.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 22
H.5		23 tpy, annual average.	EPA Method 6 or 6C as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Annual average value is calculated using an approved CEM that conforms to 40 CFR Part 60 (March 26, 1987), App. B, Perf. Spec. 2, and App. F. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 22
H.6	NO <sub>x</sub>	336 tpy, annual average.	EPA Method 7, 7B, or 7E as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 23
H.7	CO	880 tpy, annual average.	EPA Method 10 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 24
H.8		Minimum excess oxygen level at 1.2% hourly average of air combustion	Minimum oxygen level will be monitored continuously using a continuous monitoring system. Whenever the oxygen level is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-410-040(4). Report excursions and corrective action in the monthly report.	WAC 173-410-040(4) for the O&M requirement PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 24

	<b>Parameter</b>	<b>Limit &amp; Averaging Period (shall not exceed)</b>	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
H.9	VOC	144 tpy, annual average.	EPA Method 25A as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 25
H.10	Operation	Minimum operating condition.	Monitor scrubber parameters continuously as a performance indicator. The hourly average of the pressure drop through the wet scrubber will be at least 0.2 inches of water and the flow rate through the first stage of the scrubber will be at least 1800 gallons per minute. Records of the hourly average for these parameters will be maintained. Whenever the hourly average pressure drop or flow rate is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-410-040(4) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	WAC 173-410-040(4)

<sup>1</sup> Monitoring is required only when emission unit is operating.

## I. No. 3 Power Boiler

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
I.1	PM <sub>10</sub>	0.01 gr/dscf @ 7% O <sub>2</sub> on an hourly average (average of 3 one-hour runs).	Sample monthly using EPA Method 5 as prescribed in 40 CFR Part 60 (July 1, 1998). Report test results in the monthly report. The Permittee shall comply with Condition I.9 minimum O&M requirements. Report excursions in the monthly report.	60.43b(c)(1) of Subpart Db, 40 CFR Part 60 60.43b(g) of Subpart Db, 40 CFR Part 60 WAC 173-405-040(10) for the O&M requirement PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 26
I.2		36 tpy annual average.	Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 26
I.3	Opacity	Average 20% for more than 6 consecutive minutes in any 60-minute period.	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference test method. Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (December 13, 1990), App. B, Perf. Spec. 1, and App. F. Report only excursions in the monthly report.	40 CFR 60.7(c), (d), (e), (f), and (h) for excess emission notification 40 CFR § 60.11(b) 40 CFR § 60.43b(f) 40 CFR § 60.43b(g) PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 27
I.4	SO <sub>2</sub>	99 tpy annual average.	Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 28
I.5	NO <sub>x</sub>	0.25 lb./MMBtu heat input, 30-day rolling average.	EPA Method 7, 7B, or 7E as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method. Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (December 13, 1990), App. B, Perf. Spec. 2, and App. F. Report only excursions in the monthly report.	40 CFR 60.7(c), (d), (e), (f), and (h) for excess emission notification 40 CFR 60.13 for monitoring requirement 40 CFR § 60.44b PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 29
		433 tpy, annual average.	Annual average value is calculated using an approved CEM that conforms to 40 CFR Part 60 (December 13, 1990), App. B and F, Perf. Spec. 2. Report annually.	40 CFR § 60.13 for monitoring requirement PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 29
I.6	CO	1040 tpy, annual average.	EPA Method 10 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 30
I.7	VOC	121 tpy, annual average.	EPA Method 25A as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. Annual average value is calculated using actual emissions from previous stack test results. Report annually.	PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 31



	<b>Parameter</b>	<b>Limit &amp; Averaging Period (shall not exceed)</b>	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
I.8	ESP inlet temperature	500°F hourly average.	The Permittee shall continuously monitor the temperature of the gases entering the No. 3 Power Boiler ESP. If the parameter is greater than the specified operating limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report corrective actions and opacity excursions in the monthly report.	WAC 173-405-040(10) for the O&M requirement PSD-88-3 Modification 2 DE-88-360 Modification 2 Condition 32
I.9	Operation	Minimum operating condition.	Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (December 13, 1990), App. B and App. F, Perf. Spec. 1. The boiler emissions shall be no greater than 20 percent opacity for the averaging period as outlined in Condition I.3 to show continuous operation of the pollution control device. If the minimum operational parameter is greater than the specified operating range, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report corrective actions and opacity excursions in the monthly report.	WAC 173-405-040 (10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

## **J. No. 4 Power Boiler**

	<b>Parameter</b>	<b>Limit &amp; Averaging Period (shall not exceed)</b>	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
J.1	Particulate	0.1 gr/dscf @ 7% O <sub>2</sub> , hourly average.	EPA Method 5 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. The Permittee shall comply with Condition J.4 for minimum O&M requirements intended to indicate compliance with the particulate limit.	WAC 173-400-050(5)(1) WAC 173-405-040(10) for the O&M requirements
J.2	Opacity	Average 20% for more than 6 consecutive minutes in any 60 minutes period.	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method of a test method approved in writing by Ecology. Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (September 15, 1994), App. B, Perf. Spec. 1, and 40 CFR 60.13(d). Report only excursions in the monthly report.	WAC 173-400-105(5)(e) WAC 173-405-040(6)

J.3

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
SO <sub>2</sub>	1000 ppm, hourly average.	By intrinsic design, the unit cannot exceed the limit when firing natural gas. Compliance is demonstrated through normal operation when exclusively firing natural gas. When firing with fuel oil, sulfur content by weight in fuel will not exceed 2% by weight. Maintain fuel receipts showing that all fuel oil fired is ≤ 2% sulfur.	WAC 173-405-040(11)(b)

<sup>1</sup> Monitoring is required only when emission unit is operating.

The following **state-only** requirement is not federally enforceable under the federal Clean Air Act:

J.4

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
Operation	Minimum operating condition	Monitor continuously using an approved CEM that conforms to 40 CFR Part 60 (September 15, 1994), App. B, Perf. Spec. 1, and 40 CFR 60.13(d). The boiler emissions shall be no greater than 20 percent opacity for the averaging period as outlined in Condition J.2. If the minimum operational parameter is greater than the specified operating range, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report corrective actions and opacity excursions in the monthly report.	WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

## K. Kraft Digesters

No. 5, 11, 12, and 13 Kraft Digesters are federally enforceable and subject to the following requirements specifically described in Condition K.1.

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
-----------	--	-------------------------------------	---------------------------

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
K.1	TRS and NCG from No. 5, 11, 12, and 13 Kraft Digesters	Treat all currently collectible non-condensable gas (NCG) to reduce TRS emissions equal to reduction achieved by thermal oxidation in a lime kiln or the Magnefite Recovery Furnace.	Record the number of hours that NCGs generated were not combusted each month and conduct monthly inspection of the current NCG system. Whenever the NCG system malfunctions, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report periods of such non-combustion monthly. Periods of non-combustion arising from the need to prevent loss of life or limb are not subject to this requirement, and need not be considered in determining total monthly periods of non-combustion. Periods of non-combustion are not a violation of this requirement if they are less than one percent (1%) of total process operating time excluding periods of startup, shutdown, or malfunction.	40 CFR § 60.7 40 CFR § 60.283(a)(1) 40 CFR § 63.443(e)(1) WAC 173-405-040(4)

<sup>1</sup> Monitoring is required only when emission unit is operating.

No. 1, 2, 3, 4, 6, 7, 8, 9, and 10 Kraft Digesters are **state-only** requirements not federally enforceable under the Federal Clean Air Act:

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
K.2	TRS and NCG from No. 1, 2, 3, 4, 6, 7, 8, 9, and 10 Kraft Digesters	Treat all currently collectible non-condensable gas (NCG) to reduce TRS emissions equal to reduction achieved by thermal oxidation in a lime kiln or the Magnefite Recovery Furnace.	Record the number of hours that NCGs generated were not combusted each month and conduct monthly inspection of the current NCG system. Whenever the NCG system malfunctions, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report periods of such non-combustion monthly. Periods of non-combustion arising from the need to prevent loss of life or limb are not subject to this requirement, and need not be considered in determining total monthly periods of non-combustion. Periods of non-combustion are not a violation of this requirement if they are less than one percent (1%) of total process operating time excluding periods of startup, shutdown, or malfunction.	WAC 173-405-040(4)

<sup>1</sup> Monitoring is required only when emission unit is operating

**L. White Liquor Scrubbers at K3/K4/R8 and K5 Bleach Plants**

The following **state-only** requirements are not federally enforceable under the federal Clean Air Act:

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
L.1	Chlorine and chlorine dioxide from K3/K4/R8 White Liquor Scrubber	Scrubbing liquid pH at minimum of 10.0, hourly average.	Monitor scrubber pH continuously. Report excursions in the monthly report.	DE 96-AQI059
L.2	Opacity for K3/K4/R8	No visible emissions <sup>3</sup>	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method. The Permittee shall comply with Condition L.3 for opacity monitoring and reporting.	DE 96-AQI059
L.3	Operation for K3/K4/R8	Minimum operating condition	Monitor scrubber parameters continuously as a performance indicator. The pressure drop through the scrubber will be at least 3.0 inches of water, and the flow rate of scrubber will be at least 150 gallons per minute. Whenever the pressure drop or flow rate is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	DE 96-AQI059
L.4	Chlorine and chlorine dioxide from K5 White Liquor Scrubber	Scrubbing liquid pH at minimum of 10.0, hourly average.	Monitor scrubber pH continuously. Report only excursions in the monthly report.	DE 96-AQI059
L.5	Opacity for K5	No visible emissions <sup>3</sup>	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method. The Permittee shall comply with Condition L.6 for opacity monitoring and reporting.	DE 96-AQI059

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
L.6	Operation for K5	Minimum operating condition	Monitor scrubber parameters continuously as a performance indicator. The pressure through the scrubber will be at least 1.5 inches of water, and the flow rate of scrubber will be at least 110 gallons per minute. Whenever the pressure drop or flow rate is below the specified limit, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report 1-hour average excursions and corrective action in the monthly report.	DE 96-AQI059

<sup>1</sup> Monitoring is required only when emission unit is operating.

<sup>3</sup> There shall be no visible emissions other than water vapor from the K3/K4/R8 and K5 scrubber stacks. Visible emissions acknowledge the potential presence of unquantified but negligible and not visible concentrations of chlorine or chlorine dioxide.

## M. Will II Sheeter

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
M.1	Particulate	0.008 gr./dscf, hourly average (average of 3 one-hour runs)	EPA Method 5 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method. Sample once per permit term consisting of three 1-hour tests using the reference method or a test method approved in writing by Ecology. The Permittee shall comply with Condition M.4 for minimum O&M requirements intended to indicate compliance with the particulate limit.	Order DE 93AQ-I140 WAC 173-405-040(10) for the O&M requirements
M.2		5 tpy, annual average	Annual average value is calculated using actual emissions from previous stack test results. Report annually.	Order DE 93AQ-I140
M.3	Opacity	Average 5% for more than 6 consecutive minutes in any 60 minute period	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. The Permittee shall comply with Condition M.4 for opacity monitoring and reporting requirements.	WAC 173-400-040(1) Order DE 93AQ-I140

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
M.4	Operation	Minimum operating condition	Monitor the baghouse pressure drop continuously as a performance indicator. Maintain the pressure drop within the range limit of 0.2 to 6.0 inches of water. Whenever the pressure drop is beyond the specified limits, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report excursions and corrective action in the monthly report.	WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

## N. Screen Fines Truck Bin Cyclone

	<b>Parameter</b>	<b>Limit &amp; Averaging Period</b> (shall not exceed)	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
N.1	Particulate	0.007 gr/dscf	EPA Method 5 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method. The Permittee shall comply with Condition N.4 for minimum O&M requirements intended to indicate compliance with the particulate limit.	Order DE 87-309 WAC 173-405-040(10) for the O&M requirements
N.2		2.6 tpy	Annual average value is calculated using actual emissions from previous stack test results.	Order DE 87-309
N.3	Opacity	Average 10% for more than 6 consecutive minutes in any 60 minute period	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. The Permittee shall comply with Condition N.4 for opacity monitoring and reporting requirements.	WAC 173-400-040(1) Order DE 87-309
N.4	Operation	Minimum operating condition	The Permittee shall provide monthly inspection of the cyclone. Whenever cyclone malfunctions, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report excursions and corrective action in the monthly report.	WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

## O. Chip Packing Cyclone

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
O.1	Particulate	0.007 gr/dscf	EPA Method 5 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method. The Permittee shall comply with Condition O.4 for minimum O&M requirements intended to indicate compliance with the particulate limit.	Order DE 87-309 WAC 173-405-040(10) for the O&M requirements
O.2		1.4 tpy	Annual average value is calculated using actual emissions from previous stack test results from Condition O.1.	
O.3	Opacity	0% <sup>(3)</sup>	EPA Method 9 as prescribed in 40 CFR Part 60 (July 1, 1998) is the reference method or a test method approved in writing by Ecology. The Permittee shall comply with Condition O.4 for opacity monitoring and reporting requirements.	WAC 173-400-040(1) Order DE 87-309
O.4	Operation	Minimum operating condition	The Permittee shall provide for monthly inspection of the cyclone. When the cyclone malfunctions, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report excursions and corrective action in the monthly report.	WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.

<sup>3</sup> There shall be no visible emissions other than water vapor from the cyclone stacks. Visible emissions acknowledge the potential presence of unquantified but negligible and not visible concentrations of particulate.

## P. Magnefite Chip/Sawdust Truck Dump Conveyor

	Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
P.1	Operation	Minimum operating condition	The Permittee shall provide water sprays, chutes, deflector, or sock at conveyor discharge points. The Permittee will provide monthly inspection of the emission control equipment. Whenever the water sprays, chutes, and socks malfunction, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-410-040(4) and may be a violation of the underlying applicable requirement. Report excursions and corrective action in the monthly report.	Order DE-87-309 WAC 173-400-040(8) WAC 173-410-040(4)

<sup>1</sup> Monitoring is required only when emission unit is operating.

**Q. K4 Fines Blow Line**

Q.1

<b>Parameter</b>	<b>Limit &amp; Averaging Period (shall not exceed)</b>	<b>Monitoring &amp; Reporting<sup>1</sup></b>	<b>Applicable Requirement(s)</b>
Operation	Minimum operating condition	The Permittee shall provide water sprays and deflectors that will be operated continuously during chip discharge at the K4 fines blow line. The water pressure will be maintained at a minimum of 30 psig. The inspection of the water sprays will be conducted on a daily basis and an inspection log will be maintained. Whenever the water sprays and deflectors malfunction, the Permittee will initiate corrective action within 24 hours. Failure to initiate corrective action within 24 hours is a violation of WAC 173-405-040(10) and may be a violation of the underlying applicable requirement. Report excursions and corrective action in the monthly report.	Order 95--AQI050 WAC 174-400-040(8) WAC 173-405-040(10)

<sup>1</sup> Monitoring is required only when emission unit is operating.



## R. Printing Operation

Parameter	Limit & Averaging Period (shall not exceed)	Monitoring & Reporting <sup>1</sup>	Applicable Requirement(s)
R.1 Operation	Minimum operating condition	The Permittee shall limit the amount of total hazardous air pollution in the printing operation to less than 400 kg per month or shall limit the total amount of material applied in printing to less than 500 kg per month. The Permittee shall maintain the monthly log of the material <sup>4</sup> .	63.9(b) and 63.829(e), Subpart KK, 40 CFR Part 63

<sup>1</sup> Monitoring is required only when emission unit is operating.

<sup>4</sup> Permittee shall make the monthly log as specified in Condition R.1. This monthly log shall be make available from May 1999. [40 CFR Part 63, Subpart KK]

## FACILITY-WIDE GENERAL REQUIREMENTS [WAC 173-401-600]

These generally applicable requirements apply facility-wide, including insignificant emission units or activities. Insignificant emission units or activities, however, are not subject to monitoring, testing, recordkeeping, reporting, or compliance certification requirements.

1. The Permittee cannot vary the rate of emission of a pollutant according to atmospheric conditions or ambient concentrations of that pollutant, except as directed according to air pollution episode regulations. [WAC 173-400-205]
2. The Permittee shall not cause or permit emission of any contaminant if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business. [WAC 173-400-040(5)]
3. The Permittee shall not install or use any means that conceal or mask an emission of an air contaminant that would otherwise violate provisions in this permit. [WAC 173-400-040(7), 40 CFR § 60.12 for No. 3 Smelt Dissolver, No. 3 Power Boiler, No. 4 Lime Kiln, and No. 5, 11, 12, and 13 Kraft Digesters.]
4. The Permittee shall take reasonable precautions to prevent the release of air contaminants from emission units engaged in material handling, construction, demolition, or any other operation that is a source of fugitive emissions. [WAC 173-400-040(3)(a)]
5. The Permittee shall take reasonable precautions to prevent fugitive dust from becoming airborne and maintain and operate the source to minimize emissions. [WAC 173-400-040(8)(a)]
6. The following condition is **state-only** and is not federally enforceable under the Clean Air Act: No deposit of particulate matter beyond property line so as to interfere unreasonably with use and enjoyment. [WAC 173-400-040(2)]
7. The following condition is **state-only** and is not federally enforceable under the Clean Air Act: Any person causing odor which may unreasonably interfere with use & enjoyment of property must use recognized good practice and procedures to reduce odors to a reasonable minimum. [WAC 173-400-040(4)]
8. The Permittee may not cause or allow the emission of a plume from any emission unit other than a kraft recovery furnace, smelt dissolver tank, or lime kiln that has an average opacity greater than 20% for more than 6 consecutive minutes in any 60 minute period except as provided in WAC 173-405-040(6). [WAC 173-405-040(6)]
9. Except where specific requirements are defined elsewhere, the Permittee shall assure compliance with conditions 1 through 8 by recordkeeping of actions taken by the Permittee in response to complaints received by the Permittee or of possible noncompliance noticed by the

facility staff in day to day operation. The Permittee shall assess the validity of each air quality complaint and commence corrective action, if warranted, as soon as possible but no later than 3 working days of receiving the complaint. The Permittee shall keep records of the following: air quality complaints received; the assessment of validity; and what, if any, corrective action is taken in response to the air quality complaint. [WAC 173-401-630]

10. The emission of sulfur dioxide from any emissions unit other than a recovery furnace or lime kiln shall not exceed 1,000 parts per million for an hourly average, corrected to 7% oxygen for combustion units. [WAC 173-405-040(11)(b) or WAC 173-400-040(6)]
11. Where this permit specifically requires continuous monitoring, the source shall calibrate, maintain and operate equipment for continuously monitoring and recording the emissions specified, consistent with Ecology's source test manual or 40 CFR Part 60, as applicable. The source may be temporarily exempted from monitoring and reporting requirements during periods of monitoring system malfunctions, provided that the source shows to Ecology's satisfaction that the malfunction was unavoidable and is being repaired as expeditiously as practicable. [WAC 173-400-105(5)(h) and 40 CFR 60.13 for No. 3 Smelt Dissolver, No. 3 Power Boiler, No. 4 Lime Kiln, and No. 5, 11, 12, and 13 Kraft Digesters.]

Ecology recognizes that monitoring data may be unobtainable for legitimate reasons. The Permittee shall make every reasonable effort to acquire, maintain, and recover valid monitoring data. Except where an applicable requirement contains more stringent provisions, Permittee shall recover valid monitoring data and recordkeeping for at least 90% of the averaging periods during each month or, if no averaging period is used, collected during each month, in which this permit requires monitoring of a process or parameter. The 10 % allowance is contingent on the Permittee providing an acceptable explanation for the loss of monitoring data. [WAC 173-401-615]

12. The Permittee shall at all times, including periods of abnormal operation and upset conditions, to the extent practicable, maintain and operate any affected facility, including associated air pollution control equipment, in a manner consistent with good air pollution control practice. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to Ecology which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [WAC 173-405-040(10); 40 CFR § 60.11(d) for No. 3 Smelt Dissolver, No. 3 Power Boiler, No. 4 Lime Kiln, and No. 5, 11, 12, and 13 Kraft Digesters.]

The Permittee will assure compliance with this term through compliance with the terms and conditions of this permit. [WAC 173-401-615]

13. Chemical Accidental Release Program - This stationary source, as defined in 40 CFR § 68.3, is subject to part 68, the accidental release prevention regulations. This stationary source shall submit a risk management plan (RMP) by date specified in section 68.10. This stationary source shall certify compliance with the requirements of part 68 as part of the annual compliance certification as required by 40 CFR Parts 70 or 71.

14. Ozone Protection - The Permittee shall comply with the applicable standards for recycling and emissions reductions, not specifically declared as inapplicable elsewhere in this permit, pursuant to 40 CFR Part 82, Subpart F.
  - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" is defined at § 82.152.)
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant purchased and added to such appliances must do so in compliance with §82.166.
15. National Emissions Standards for Hazardous Air Pollutants from the Pulp and Paper Industry.
  - a) Permittee shall comply with the applicable requirements of the National Emissions Standards for Hazardous Air Pollutants from the Pulp and Paper Industry (40 CFR §§ 63.440-458), including applicable portions of the General Provisions (40 CFR §§ 63.1 through 63.11) on April 16, 2001; with the exception of the standards for Kraft pulp system provisions of § 63.443, for which the compliance deadline is on April 16, 2006. 40 CFR § 63.440(d).
  - b) Permittee shall submit the initial notification report specified under 40 CFR § 63.9(b)(2) on April 16, 1999. [40 CFR § 63.455(a)]
  - c) Permittee shall submit, with the initial notification report required in paragraph b above, and every two years thereafter, a non-binding control strategy report containing at a minimum, in addition to the information required under 40 CFR § 63.9(b)(2) the following:
    - i) A description of the emission controls or process modifications selected for compliance with the control requirements in this standard.
    - ii) A compliance schedule, including the dates by which each step toward compliance will be reached for each emission point or sets of emission points.
16. The Permittee will continue to comply with applicable requirements with which the Permittee is in compliance. [WAC 173-401-630(3) and 510(2)(h)(iii)(A)]
17. The Permittee will meet applicable requirements that become effective during the permit term on a timely basis. [WAC 173-401-630(3) and 510(2)(h)(iii)(B)]
18. Volatile Organic Liquid Storage Vessels - The Permittee shall keep records showing the dimensions and capacities of all storage vessels having capacities greater than or equal to 40 cubic meters that are used to store volatile organic liquids and for which construction, reconstruction, or modification commenced after July 23, 1984. These records are to be kept for the life of each storage vessel [40 CFR §§ 60.116b (a) and (b)]

19. The Condition sets forth the source test frequency, the emission units, and conditions which the Permittee shall complete prior to be eligible for the source test reduction allowance.
- a) Fort James will finish all environmental projects as specified in the Air Consent Decree No. 97 2 03137 4, which enclosed in Appendix B in this permit.
  - b) The emission units that are subject to Condition 19 shall be No. 3 and No. 4 Kraft Recovery Furnaces, No. 3 and No. 4 Smelt Dissolvers, No. 4 Lime Kiln, the Magnefite Recovery Furnace, and the No. 3 Power Boiler. The source test frequency for these emission units prior to reduction allowance are depicted in the appropriate tables in Sections A, B, D, E, G, H, and I.
  - c) Initially, Fort James will achieve compliance records at all emission units for the source test allowance reduction. This can be illustrated when monthly source tests to the applicable emission points comply with the applicable emission limits for a period of twelve (12) months from the date when the permit becomes effective. After this is accomplished, individual emission units qualify for the source test reduction on individual basis.
  - d) If monitored emissions are equal to or less than 75% of the emission limitation for any six consecutive months, emissions will be monitored by one 3-hour test per quarter and reported quarterly. There shall be no more than 105 days between each quarterly test. If monitored emissions are greater than 75% of the emission limitation in any of the previous six months, the monitoring and reporting frequency will be as stated in the tables. The permit conditions that affected are A.1, B.1, D.1, E.1, G.1, H.1, and I.1.
20. The following condition is **state-only** and is not federally enforceable under the Clean Air Act. The Permittee can burn used oil only if it meets standards prescribed in RCW 70.94.610(1). [RCW 70.94.610]
21. The Permittee must comply with 40 CFR §§ 61.145 and 61.150 and WAC 173-400-075 if asbestos-containing material is present above specified quantities in a facility being demolished or renovated. [40 CFR Part 61, Subpart M]

## **MONITORING, RECORDKEEPING & REPORTING**

### **Monitoring Requirements** [WAC 173-401-630(5)(b)]

22. **Unit-Specific Requirements.** The Permittee shall conduct routine monitoring of emissions in accordance with the program of monitoring or testing required for specific emission units in conditions A through R of this permit. [WAC 173-405-072]
23. **Unavoidable Excess Emissions.** This condition applies , where applicable, to excess emissions that are claimed to be unavoidable pursuant to WAC 173-400-107. The Permittee may include in its reports demonstrations that excess emissions were unavoidable, consistent with the requirements of WAC 173-400-107. The Permittee shall have the burden to prove

that deviations from permit terms were unavoidable. Excess emissions that are unavoidable are excused and not subject to penalty. [WAC 173-400-107]

24. **Violation Duration.** A violation of an emission limit in this permit is presumed to commence at the time of the testing, recordkeeping or monitoring indicating noncompliance, and to continue until the time of retesting, recordkeeping or monitoring that indicates compliance. This presumption may be defeated if credible evidence shows that the violation was of longer duration, that there were intervening days during which no violation occurred or that the violation was not continuing in nature [42 U.S.C. 7413(e)(2)]. The Permittee may conduct monitoring or testing more frequently than required by this permit to demonstrate compliance with an emission limit.
25. **Insignificant Emission Units (IEUs).** The Permittee is not subject to any testing, monitoring, reporting, or recordkeeping for the insignificant emission units or activities listed [WAC 173-401-530(2)(c)].

### **Recordkeeping Requirements**

26. The Permittee shall keep records of any periodic and continuous monitoring required by this permit. These records shall include the following, where applicable:
  - a. The date, place as defined in requirement, and time of sampling or measurement;
  - b. The date(s) analysis were performed;
  - c. The company or entity that performed the analysis;
  - d. The analytical techniques or methods used;
  - e. The results of such analysis;
  - f. The operating conditions existing at the time of sampling or measurement. [WAC 173-401-615(2)(a); WAC 173-400-105; 40 CFR § 60.49b(f).]
27. The Permittee shall keep records describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. [WAC 173-401-724(5)]
28. The Permittee shall retain records of all required monitoring data and support information for a period of 5 years from the date of monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [WAC 173-401-615(2)(c); 40 CFR § 60.49b(o)]
29. The Permittee shall maintain a contemporaneous record of any deviation from the requirements of this permit. [WAC 173-401-615(3)(b)]

**Reporting Requirements** [WAC 173-401-520, -615(3), & -710]

30. In addition to any emission unit specific reporting requirements identified below, emission unit specific requirements are identified in conditions A through R.
31. Report within 15 days of the end of each month average daily production of air-dried unbleached pulp. [WAC 173-405-072(4)]
32. Submittal of reports of any required monitoring by this permit must be submitted to Ecology within 15 days of the end of each calendar month. The reports must clearly identify all instances of deviations from permit requirements. [WAC 173-405-072 and WAC 173-401-615(3)(a)]
33. Submit an inventory of emissions from the source each year no later than 105 days after the end of the calendar year; maintain records of information necessary to substantiate any reported emissions. The Permittee is not required to include units identified as insignificant under WAC 173-401-530. [WAC 173-400-105(1)]
34. The Permittee shall promptly submit a report of any deviations from permit conditions. [WAC 173-401-615(3)(b)]
  - a. For purposes of this permit, submitting a report "promptly" means the following: (a) if the deviation presents a potential threat to human health or safety, the report shall be made as soon as possible but no later than 12 hours after the discovery of the deviation; (b) for other deviations, "promptly" means that the deviations are identified in the respective monthly report.
  - b. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. [WAC 173-401-615(3).] The Permittee may include in its reports demonstrations that excess emissions, excursions or deviations were unavoidable, consistent with the requirements of WAC 173-400-107.
35. Certification of truth, accuracy and completeness. Any application form, report or compliance certification required to be submitted by this permit or by Chapter 401 WAC shall contain certification by a responsible official of truth, accuracy and completeness. For purposes of this section, "report" shall mean monthly monitoring reports or other report required to be submitted by Chapter 401 WAC, and other formal documents required under this permit and shall not include prompt deviation reports pursuant to paragraph 34 and informal correspondence, notes, or information. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [WAC 173-401-520]
36. All reports and renewal applications required by this permit shall be submitted to:

Department of Ecology  
Industrial Section

P.O. Box 47706  
Olympia, WA 98504-7706

All reports and submittals that are required under 40 CFR § 60.4(a) and (b) be sent to EPA Region X and Ecology at the address above. [40 CFR §§ 60.4(a) and the 2<sup>nd</sup> sentence of § 60.4(b) for No. 3 Smelt Dissolver, No. 3 Power Boiler, No. 4 Lime Kiln, and No. 5, 11, 12, and 13 Kraft Digesters.]

37. Compliance Certification. The Permittee shall submit a report to the Department of Ecology and to EPA Region X within 105 days after the close of the calendar year, and every year thereafter, certifying compliance with the terms and conditions contained in this permit for the previous calendar year. The initial compliance certification shall cover the period from when the permit is effective to the end of the calendar year. The certification shall describe the following:
- a. the permit term or condition that is the basis of the certification;
  - b. the compliance status;
  - c. whether compliance was continuous or intermittent; and
  - d. the methods used for determining compliance. [WAC 173-401-630(5)]

The compliance status (condition 37b.) shall be based on compliance with the final averaging period of the annual certification period. Determination of continuous or intermittent compliance (condition 37c.) shall be based on compliance during the entire annual certification period. The Permittee is not required to certify compliance for insignificant emission units or activities. [WAC 173-401-530(2)(d)]



## STANDARD TERMS & CONDITIONS

38. **Duty to Comply.** The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of chapter 70.94 RCW and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for potential enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [WAC 173-401-620(2)(a)]
39. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [WAC 173-401-620(2)(b)]
40. **Permit Actions.** This permit may be modified, revoked, reopened, and reissued or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [WAC 173-401-620(2)(c)]
41. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege. [WAC 173-401-620(2)(d)]
42. **Duty to Provide Information.** The Permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the permitting authority along with a claim of confidentiality. Permitting authorities shall maintain confidentiality of such information in accordance with RCW 70.94.205. [WAC 173-401-620(2)(e)]
43. **Permit Fees.** The Permittee shall pay fees as a condition of this permit in accordance with the permitting authority's fee schedule. Failure to pay fees in a timely fashion shall subject the Permittee to civil and criminal penalties as prescribed in chapter 70.94 RCW. [WAC 173-401-620(2)(f)]
44. **Emissions Trading.** No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit. [WAC 173-401-620(2)(g)]
45. **Severability.** If any provision of this permit is held to be invalid, all unaffected provisions of the permit shall remain in effect and be enforceable. [WAC 173-401-620(2)(h)]
46. **Permit Appeals.** This permit or any conditions in it may be appealed only by filing an appeal with the pollution control hearings board and serving it on the permitting authority within

thirty days of receipt pursuant to RCW 43.21B.310. This provision for appeal in this section is separate from and additional to any federal rights to petition and review under § 505(b) of the FCAA. [WAC 173-401-620(2)(i)]

47. Permit Continuation. This permit is issued for a 5 year term; however, this permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, shall not expire until the renewal permit has been issued or denied if a timely and complete application has been submitted. An application shield granted pursuant to WAC 173-401-705(2) shall remain in effect until the renewal permit has been issued or denied if a timely and complete application has been submitted. [WAC 173-401-620(2)(j)]
48. Inspection and Entry. Upon consent of the Permittee or upon presentation of credentials and other documents as may be required by law, the Department of Ecology or an authorized representative shall be allowed to:
  - (1) Enter the source;
  - (2) Have access to and copy at reasonable times any records that must be kept under this permit and only those records;
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
  - (4) As authorized by WAC 173-400-105 and the FCAA, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements. [WAC 173-400-105(4); WAC 173-401-630(2)]

## **PERMIT SHIELD**

Compliance with the conditions in this permit is deemed to constitute compliance with applicable requirements as contained in this permit on which the term or condition is based, as of the date the permit is issued. [WAC 173-401-640(1)]

The Department of Ecology has determined that the requirements listed in Appendix A to this permit do not apply to the facility, as of the date the permit is issued, for the reasons specified. [WAC 173-401-640(2)]

**APPENDIX A**  
**Permit Shield/Inapplicable Requirements**

All air quality requirements not specifically identified in this permit are considered inapplicable without qualifying actions on the part of either Ecology, the Permittee, or both.

**Permit Shield/Inapplicable Requirements  
Fort James Camas Mill**

<b>Citation</b>	<b>Source/Topic/Parameter</b>	<b>Basis for Determining its Inapplicability</b>
WAC 173-400-040(1)	Not >20% opacity for 3 minutes in any one hour (four exceptions; (a) soot blowing/grate cleaning (b) uncombined water (c) common stack (d) alternate limit set)	WAC 173-405 and 173-410 provide specific standards over general standards.
WAC 173-400-040(8)(b)	Fugitive dust sources identified as <u>significant</u> contributors to PM10 non-attainment must apply RACT	This regulation is not applicable to the source. The mill has <u>not</u> identified fugitive dust sources corresponding to this regulation.
WAC 173-400-045	Sources subject to a RACT determination must pay fees as specified	This regulation is not applicable to the source. The mill has <u>not</u> identified fugitive dust sources corresponding to this regulation.
WAC 173-400-075	Sources of arsenic, beryllium, benzene, mercury, radio nuclides or vinyl chloride	This regulation is not applicable to the source. The mill has <u>not</u> identified sources corresponding to this regulation.
WAC 173-400-105(5)(d)	Opacity monitoring required for <u>wood residue</u> fuel fired steam generators with capacity of $\geq 100$ million BTU/hr heat input, which are <u>not</u> subject to an NSPS	No. 3 PB which fires wood residue is subject to NSPS, this regulation does not apply.
WAC 173-400-151	Retrofit requirements for visibility protection--must apply BART	This regulation is not applicable to the source. The mill has <u>not</u> identified sources corresponding to this regulation.
WAC 173-405-040(1)(b)	TRS limit of 17.5 ppm for DCE Kraft recovery furnaces or constructed before 1/1/70	This regulation is not applicable to the source. The mill has <u>not</u> identified sources corresponding to this regulation.
WAC 173-405-072 (1), (2), (3), (4)	Monitoring requirements	PSD-88-3 MOD1 and DE88-360-MOD1 include specific monitoring requirements which take precedent over WAC 173-405-072.
40 CFR § 60.283(a)(1)	TRS emissions < 5ppm corrected to 10% oxygen unless controlled using one of the methods listed and other provisions of this section are met -- North brown stock washers.	Brown stock washers are not subject to NSPS. The EPA Region X and Ecology exempted the requirement for the affected facility on May 31, 1996 and September 18, 1981. The exemption was granted based on the economically infeasible determination by the agencies.
40 CFR § 60.284(a)(2) 40CFR § 60.7	CEM for TRS emissions	Brown stock washers are not subject to NSPS. The EPA Region X and Ecology exempted the requirement for the affected facility on May 31, 1996 and September 18, 1981. The exemption was granted based on the economically infeasible determination by the agencies.
WAC 173-410-040(1)(b) (1)(c) (1)(e) (2)(b) (2)(c)(i)	SO <sub>2</sub> limit for sulfite pulping mill does <u>not</u> incinerate spent sulfite liquor SO <sub>2</sub> limit for blow system SO <sub>2</sub> limit for recovery system constructed after 1/24/72 Particulate limit for recovery system constructed after 1/24/72 Particulate limit for units which combust wood residue--construction before 1/1/83	(i) Spent sulfite liquor is burned in the MgO recovery furnace (ii) All digester emissions are captured--either burned or sewered (iii) Construction was before 1/24/72 (iv) Construction was before 1/24/72 (v) No source that corresponds to this regulation
WAC 173-410-062 (1)-(5) 173-410-067	Monitoring requirements	PSD 88-3 MOD1 and DE88-360-MOD1 include specific monitoring requirements which take precedent over WAC 173-410-062 & 067.
WAC 173-422-030	Motor vehicle emission inspection	Not applicable to stationary sources.

**Permit Shield/Inapplicable Requirements  
Fort James Camas Mill  
(Continued)**

<b>Citation</b>	<b>Source/Topic/Parameter</b>	<b>Basis for Determining its Inapplicability</b>
WAC 173-433	Solid fuel burning devices	This regulation is intended to apply to wood stoves and fireplaces only according to advice from Ecology.
WAC 173-435	Emergency Episode Plan	Ecology has not requested a plan per our records.
WAC 173-470, 474, 475, 480, 481	Ambient Air Quality Standards	Ambient air quality standards (AAQS) do not apply directly to stationary sources.
RCW 70.94.531	Commute trip reduction	This regulation is not applicable to <u>stationary</u> sources.

**APPENDIX B**  
**Compliance Schedule**  
**Consent Decree No. 97 2 03137 4**

## **APPENDIX B**

Pursuant to RCW 70.94.425 and 432 Fort James and Ecology entered into a consent decree that designed to improve operating conditions at the Camas Mill. The consent decree establishes a compliance schedule that allows for design and implementation of facility upgrades that will significantly decrease mill air emissions and ensure that the plant can operate in full compliance with all applicable standards.

The consent decree consists of two distinctive work schedules, which are Exhibit A and Exhibit B to be performed by Fort James.

Exhibit A contains a compliance schedule for the remedial measures required to bring the Camas Mill into full compliance with air emissions standards. Exhibit B contains an innovative settlement project in which Fort James will provide a modern emergency communication equipment for the City of Camas. This communication system can greatly reduce the time interval between emergency events at the Camas Mill, such as large release to the atmosphere, and the implementation of coordinated emergency procedures. In addition to the works specified in the exhibits, EPA and Ecology assessed a monetary penalty of \$82,357 against Fort James. The civil penalty was submitted to Ecology on August 4, 1997.

Appendix B describes the progress of the environmental projects that contain in the consent decree.



**APPENDIX B  
EXHIBIT A**

**TABLE 1      PROGRESS TOWARD COMPLETION OF THE CONSENT DECREE  
COMPLIANCE SCHEDULE FOR EVALUATION OF AIR EMISSION PROBLEMS  
AND IMPLEMENTATION OF CONTROL MEASURES**

SOURCE	DUE DATE	COMPLETION DATE	MILESTONE DESCRIPTION
A. No. 3 Power Boiler	12/31/96	10/31/96	Complete construction to route NCGs to the Magnefite Recovery Furnace from No. 3 Power Boiler.
	1/31/97	11/1/96	System check and operation startup of Magnefite NCG system.
	2/28/97	7/29/97	Compliance demonstration for Ecology.
B. No. 3 & No. 4 Smelt Dissolvers	7/31/97	7/29/97	Submit an NOC application with sufficient offsets.
C. Magnefite Recovery Furnace	4/21/97	4/01/97	Begin installing new shields on the two oxygen probes in the furnace; reinstall the probes.
	6/02/97	4/03/97	Start a testing program to correlate furnace oxygen levels with stack particulate emissions.
	7/31/97	7/18/97	Submit the correlation study test results to Ecology with a revised Magnefite Recovery/Acid Plant compliance plan.
D. Bleach Plant Modifications	11/28/96	10/10/96	Complete construction and system check of K5 Scrubber. Startup operations.
	1/31/97	1/18/97	Compliance demonstration for K5 Scrubber.
	7/31/97	6/06/97	Complete construction of K3/K4/R/8 New White Liquor Scrubber and K4 Hypo Elimination Project.
	9/30/97	6/24/97	System check and startup of K3/K4 Scrubber. Compliance demonstration completed.
E. Chlorine Handling Audit	1/31/97	12/19/96	Submit results of chemical safety

SOURCE	DUE DATE	COMPLETION DATE	MILESTONE DESCRIPTION
			audit of chlorine handling system, including findings and recommendations, to Ecology.
F. Inspection, Cleaning, and Maintenance Program for Scrubbers	12/31/96	5/24/96	Submit inspection, cleaning, and maintenance program for the Kraft Recovery Furnaces and Lime Kiln.
	1/31/97	6/12/96	Ecology approval of programs for the Smelt Dissolvers, Kraft Recovery Furnaces and the Lime Kiln.
G. Inspection, Cleaning, and Maintenance Program for Scrubbers	3/31/97	3/31/97	Submit inspection, cleaning, and maintenance program for the for the Magnefite Recovery Caustic Scrubber operations.
	9/30/97	9/19/97	Submit inspection, cleaning, and maintenance program for the K5 and K3/K4 bleach plant scrubbers.
	10/31/97	12/16/97	Ecology approval of program.
H. No. 4 Kraft Recovery Furnace	3/31/97	3/14/97	Submit a study plant for Electrostatic Precipitators ("ESP") for the No. 4 Kraft Recovery Furnace.
	5/30/97	4/25/97	Ecology approval of study plan.
	10/31/97	10/10/97	Submit an analysis of current ESP operation which focuses on rebuilt or replacement options.
	1/02/98	11/20/97	Ecology approval of selection option.
	4/30/98	3/9/98	Completion of preliminary engineering plans.
	6/30/98	3/12/98	Issue purchase orders.
	9/30/98	6/9/98	Begin construction.
	7/30/99	5/15/99	Complete construction.
	9/30/99	5/19/99	System check and startup; in compliance.
I. Backup Power to the Lurgi Process	10/31/96	10/31/96	Complete construction of backup power source.
	11/29/96	11/21/96	System check and startup; in compliance.

**APPENDIX B**  
**EXHIBIT B**

Under the provisions of the innovative settlement agreement Fort James was obligated to provide emergency communication equipment for the City of Camas and the mill emergency response team. The equipment was installed on September 16, 1997 at the cost of \$118,565. This exceeds the consent decree requirement of \$114,100.

## APPENDIX C

### Algorithms for Emissions Calculations

These following algorithms set forth the calculation method for those emission limits that the designated Reference Method itself does not yield a direct emission measurement. The Permittee may use an equivalent method with written approval from Ecology.

#### A. Reference Method Dependent Emission Limits

Conditions C.1, F.1, G.2, H.2, I.2, and M.2

$$\text{PM (mass per time)} = \text{Concentration} * \text{Air Flow Rate} * \text{Unit Conversion Factor} * \text{Time Adjustment}$$

Where,

**Concentration** is Reference Method (RM) dependent. For example, RM 5 yields particulate emission in terms of grains per dry standard cubic foot (gr/dscf).

**Air Flow Rate** must be representative of normal operations and is derived from the applicable RM in terms of dry standard cubic feet per minute.

**Unit Conversion Factor** is case specific. For example, 1 pound = 7,000 grains.

**Time Adjustment** is case specific and is dependent on the flow rate time unit or fuel flow rate.

The monthly values (monthly, quarterly, or other test frequency, whichever applicable) for the year will be summed to determine the annual average at the end of the calendar year.

Conditions F.2 and I.4

$$\text{SO}_2 \text{ (mass per time)} = \text{Emission Factor} * \text{Fuel Consumption Rate}$$

Where,

**Emission Factor** derived from previous actual stack test. For example, sulfur dioxide emissions from the smelt dissolver vents measured using EPA Method 6C.

**Fuel Consumption Rate** must be representative of normal operations and is in the unit of mass of fuel consumption per unit time.

Conditions C.3, G.6, H.6

$$\text{NO}_x \text{ (mass per time)} = \text{Emission Factor} * \text{Fuel Consumption (or Material Produced)}$$

Where,

**Emission Factor** derived from previous actual stack test. For example, nitrogen oxide emissions from the lime kiln measured using EPA Method 7, 7A, or 7B.

**Fuel Consumption Rate** must be representative of normal operations and is in the unit of mass of fuel consumption or material produced per unit time. For example, the annual production of calcium oxide from calcium carbonate at the lime kiln is used to estimate the NO<sub>x</sub> emissions.

Conditions C.4, G.7, H.7, and I.6

$$\text{CO (mass per time)} = \text{Emission Factor} * \text{Fuel Consumption (or Material Produced)}$$

Where,

**Emission Factor** derived from previous actual stack test. For example, carbon monoxide emissions from the kraft recovery furnaces measured using EPA Method 10.

**Fuel Consumption Rate** must be representative of normal operations and is in the unit of mass of fuel consumption or material produced per unit time. For example, the annual production of calcium oxide from calcium carbonate at the lime kiln is used to estimate the CO emissions.

Conditions C.5, F.3, G.8, H.9, and I.7

$$\text{VOC (mass per time)} = \text{Emission Factor} * \text{Fuel Consumption (or Material Produced)}$$

Where,

**Emission Factor** derived from previous actual stack test. For example, VOC emissions from the kraft recovery furnaces measured using EPA Method 25A.

**Fuel Consumption Rate** must be representative of normal operations and is in the unit of mass of fuel consumption or material produced per unit time. For example, the annual production of calcium oxide from calcium carbonate at the lime kiln is used to estimate the VOC emissions.

Conditions F.4

$$\text{TRS (mass per time)} = \text{Emission Factor} * \text{Fuel Consumption}$$

Where,

**Emission Factor** derived from previous actual stack test. For example, TRS emissions from the kraft recovery furnaces measured using EPA Method 16 or 16A.

**Fuel Consumption Rate** must be representative of normal operations and is in the unit of mass of fuel consumption.

## B. CEM Dependent Emission Limits

Condition C.2, G.5, and H.5

$$\text{SO}_2 \text{ (mass per time)} = \text{Concentration} * \text{Air Flow Rate} * \text{Unit Conversion Factor} * \text{Time Adjustment}$$

Where,

**Concentration** is case specific in terms of averaging period as required by the permit. Each emission unit limitation specifies the averaging period used by the CEMS. For example, the CEM on the No. 4 Recovery Furnace derives a 1-hour averages. The 1-hour average will be measured based on EPA Method 6C.

**Air Flow Rate** must be representative of normal operation. For example, dry standard cubic feet per minute is obtained from the previous six consecutive particulate matter (PM) sampling periods.

**Unit Conversion Factor** is pollutant specific and involves molar mass and molar volume. For example, the unit conversion factor for SO<sub>2</sub> is 64 lb/lb.mole and an ideal gas of volume at standard conditions of 385 cubic feet.

**Time Adjustment** is case specific and is dependent on the flow rate time unit.

The monthly values for the year will be summed to determine the annual average at the end of the calendar year.

#### Condition I.5

$$\text{NO}_x \text{ (mass per time)} = \text{Concentration} * \text{Fuel Consumption}$$

Where,

**Concentration** is derived from CEM in terms of lb/MMBtu.

**Fuel Consumption** must be representative of normal operations and is in the unit of mass of fuel consumption. For example, the annual throughput of hog fuel of the No.3 Power Boiler is used to estimate the NO<sub>x</sub> emissions.

#### Condition C.6 and G.9

$$\text{TRS (mass per time)} = \text{Concentration} * \text{Air Flow Rate} * \text{Unit Conversion Factor} * \text{Time Adjustment}$$

Where,

**Concentration** is case specific in terms of averaging period as required by the permit. Each emission unit limitation specifies the averaging period used by the CEMS.

**Air Flow Rate** must be representative of normal operation. For example, dry standard cubic feet per minute is obtained from the average of the last six consecutive PM sampling periods.

**Unit Conversion Factor** is pollutant specific and involves molar mass and molar volume. For example, the unit conversion factor for TRS as H<sub>2</sub>S is 0.0883 lb per cubic foot based on a molecular weight of 34 lb/lb mol and an ideal gas volume of standard conditions of 385ft<sup>3</sup>/lb mol.

**Time Adjustment** is case specific and is dependent on the flow rate time unit.

The monthly values for the year will be summed to determine the annual average at the end of the calendar year.

**APPENDIX D**  
Applicable Requirements Consolidated to Single Permit Terms

Certain permit conditions impose a single emission limit or requirement that is based on two or more underlying applicable requirements. This table presents the basis for consolidating these redundant requirements into single permit conditions.

**No. 3 Kraft Recovery Furnace (Emission Unit Specific Requirements, A.)**

Note: This unit is not subject to New Source Performance Standard Subpart BB

Limit #	Underlying Applicable Requirements – Cite and Paraphrase of Requirement	Basis for Consolidating
A.1	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Particulate limit (PM <sub>10</sub> ) is 0.033 gr/dscf @ 8% O <sub>2</sub> , avg. three 1-hour runs; EPA Method 5. <b>WAC 173-405-040(1)(a):</b> Particulate limit is 0.10 gr/dscf @ 8% O <sub>2</sub> , avg. three 1-hour runs; approved EPA or Ecology test methods.	Permit imposes the more stringent 0.033 gr/dscf limit from the PSD/NOC approval.
A.2	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Opacity limit is 20% for more than 6 consecutive minutes in any 60 minute period. <b>WAC 173-405-040(6):</b> Opacity limit is 35% for more than 6 consecutive minutes in any 60 minute period.	Permit imposes the more stringent 20% opacity limit from the PSD/NOC approval.
A.3	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> SO <sub>2</sub> limit is 10 ppm @ 8% O <sub>2</sub> , 24-hour avg.; EPA Method 6 or 6c. <b>WAC 173-405-040(11):</b> SO <sub>2</sub> limit is 500 ppm @ 8% O <sub>2</sub> , hourly avg.; approved EPA or Ecology test methods.	Permit imposes 10 ppm limit, which is more stringent than and encompasses the 500 ppm limit (impossible to emit up to 500 ppm in one hour and still meet 10 ppm 24-hour avg. limit).
A.5	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> TRS limit is 5 ppm @ 8% O <sub>2</sub> , 12-hour average; EPA Method 16 or 16A. <b>WAC 173-405-040(1)(c):</b> limit is 5 ppm @ 8% O <sub>2</sub> , daily average; approved EPA or Ecology test methods.	Permit imposes the more stringent 5 ppm limit and 12-hour averaging period from PSD/NOC approval.

**No. 4 Kraft Recovery Furnace (Emission Unit Specific Requirements, B.)**

Note: This unit is not subject to New Source Performance Standard Subpart BB

Limit	Underlying Applicable Requirements –	Basis for Consolidating
-------	--------------------------------------	-------------------------

#	Cite and Paraphrase of Requirement	
B.1	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Particulate limit (PM <sub>10</sub> ) is 0.033 gr/dscf @ 8% O <sub>2</sub> , avg. three 1-hour runs; EPA Method 5. <b>WAC 173-405-040(1)(a):</b> Particulate limit is 0.10 gr/dscf @ 8% O <sub>2</sub> , avg. three 1-hour runs; approved EPA or Ecology test methods.	Permit imposes the more stringent 0.033 gr/dscf limit from the PSD/NOC approval.
B.2	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Opacity limit is 20% for more than 6 consecutive minutes in any 60 minute period. <b>WAC 173-405-040(6):</b> Opacity limit is 35% for more than 6 consecutive minutes in any 60 minute period.	Permit imposes the more stringent 20% opacity limit from the PSD/NOC approval.
B.3	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> SO <sub>2</sub> limit is 10 ppm @ 8% O <sub>2</sub> , 24-hour avg.; EPA Method 6 or 6c. <b>WAC 173-405-040(11):</b> SO <sub>2</sub> limit is 500 ppm @ 8% O <sub>2</sub> , hourly avg.; approved EPA or Ecology test methods.	Permit imposes 10 ppm limit, which is more stringent than and encompasses the 500 ppm limit (impossible to emit up to 500 ppm in one hour and still meet 10 ppm 24-hour avg. limit).
B.5	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> TRS limit is 5 ppm @ 8% O <sub>2</sub> , 12-hour average; EPA Method 16 or 16A. <b>WAC 173-405-040(1)(c):</b> limit is 5 ppm @ 8% O <sub>2</sub> , daily average; approved EPA or Ecology test methods.	Permit imposes the more stringent 5 ppm limit and 12-hour averaging period from PSD/NOC approval.

No. 3 Smelt Dissolver Tank (Emission Unit Specific Requirements, D.)

Limit #	Underlying Applicable Requirements – Cite and Paraphrase of Requirement	Basis for Consolidating
D.1	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Particulate limit (PM <sub>10</sub> ) is 0.12 lb/ton of black liquor solids (BLS) dry weight, hourly average of three one-hour runs; Method 5. <b>40 CFR § 60.282(a)(2):</b> Particulate limit is 0.2 lb/ton of BLS dry weight; Method 5. <b>WAC 173-405-040(2):</b> Particulate limit is 0.3 lb/ton of BLS dry weight; approved EPA or Ecology test methods.	Permit imposes limit from the PSD/NOC approval, which has a more stringent lb/ton limit.
D.2	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Opacity limit is 20% for more than 6 consecutive minutes in any 60 minute period. <b>WAC 173-405-040(6):</b> Opacity limit is 35% for more than 6 consecutive minutes in any 60 minute period.	Permit imposes the more stringent 20% opacity limit from the PSD/NOC approval.
D.3	<b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> TRS limit is 0.0168 lb/ton of black liquor solids, daily average; EPA Method 16A or 16C. <b>40 CFR § 60.283(a)(4):</b> TRS limit is 0.033 lb/ton of black liquor solids; EPA Method 16.	Permit imposes the more stringent 0.0168 lb/ton limit from the PSD/NOC approval.



D.4	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Requires, as performance indicators, that hourly average pressure drop through the wet scrubber be at least 3 inches of water and flowrate through the first stage of the scrubber be least 2000 gallons per minute at a minimum pH of 9, , based on continuous monitoring while operating.</p> <p><b>40 CFR § 60.284(b)(2):</b> Requires monitoring device to continuously measure pressure loss and scrubbing liquor supply.</p>	PSD/NOC approval encompasses NSPS requirement to monitor and adds specific scrubber parameters.

#### No. 4 Smelt Dissolver Tank (Emission Unit Specific Requirements, E.)

Note: This unit is not subject to New Source Performance Standard Subpart BB

Limit #	Underlying Applicable Requirements – Cite and Paraphrase of Requirement	Basis for Consolidating
E.1	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Particulate limit (PM<sub>10</sub>) is 0.12 lb/ton of black liquor solids dry weight, hourly average of three one-hour runs; DOE Method 8.</p> <p><b>WAC 173-405-040(2):</b> Particulate limit is 0.3 lb/ton of black liquor solids dry weight; approved EPA or Ecology test methods.</p>	Permit imposes the more stringent 0.12 lb/ton limit from the PSD/NOC approval.
E.2	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Opacity limit is 20% &gt; than 6 consecutive minutes in any 60 minute period.</p> <p><b>WAC 173-405-040(6):</b> Opacity limit is 35% for &gt; 6 consecutive minutes in any 60 minute period.</p>	Permit imposes the more stringent 20% opacity limit from the PSD/NOC approval.

No. 4 Lime Kiln (Emission Unit Specific Requirements, G.)

Limit #	Underlying Applicable Requirements – Cite and Paraphrase of Requirement	Basis for Consolidating
G.1	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Particulate limit (PM<sub>10</sub>) is 0.13 gr/dscf @ 10% O<sub>2</sub> when firing with fuel oil, 0.067 gr/dscf @ 10% O<sub>2</sub> when firing with natural gas; DOE Method 8.</p> <p><b>40 CFR § 60.282(a)(3):</b> Particulate limit is 0.13 gr/dscf @ 10% O<sub>2</sub> when firing with fuel oil, 0.067 gr/dscf @ 10% O<sub>2</sub> when firing with natural gas; EPA Method 5.</p> <p><b>WAC 173-405-040(1)(a):</b> Particulate limit is 0.13 gr/dscf @ 10% O<sub>2</sub>; approved EPA or Ecology test methods.</p>	Permit imposes PSD/NOC approval limit, which is equivalent NSPS limit and more stringent than WAC limit, while requiring use of more stringent test method than the NSPS (Meth. 8 measures both front & back half catch; Meth. 5 only front half).
G.3	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Opacity limit is 35% for &gt; 6 consecutive minutes in any 60 minute period.</p> <p><b>WAC 173-405-040(6):</b> Opacity limit is 35% for more than 6 consecutive minutes in any 60 minute period.</p>	Permit imposes the similar 35% opacity limit as the PSD/NOC approval.
G.9	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> TRS limit is 8 ppm dry basis @ 10% O<sub>2</sub> on a 12-hour average; EPA Method 16 or 16A.</p> <p><b>40 CFR § 60.283(a)(5):</b> TRS limit is 8 ppm dry basis @ 10% O<sub>2</sub> on a 12-hour average; EPA Method 16 or 16A.</p> <p><b>WAC 173-405-040(3)(c):</b> limit is 20 ppm @ 8% O<sub>2</sub> on a daily average; approved EPA or Ecology test methods.</p>	Permit imposes the 8 ppm limit from the PSD/NOC approval, which is equivalent to the NSPS requirement and more stringent than the WAC requirement.
G.10	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Requires, as performance indicators, that hourly average pressure drop through the wet scrubber be at least 24 inches of water and flowrate through the first stage of the scrubber be least 380 gallons per minute, based on continuous monitoring while operating.</p> <p><b>40 CFR § 60.284(b)(2):</b> Requires monitoring device to continuously measure pressure loss and scrubbing liquor supply.</p>	PSD/NOC approval encompasses NSPS requirement to monitor and adds specific scrubber parameters.

**Magnetite Recovery Furnace/Acid Plant (Emission Unit Specific Requirements, H.)**

Limit #	Underlying Applicable Requirements – Cite and Paraphrase of Requirement	Basis for Consolidating
H.1	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Particulate limit (PM<sub>10</sub>) is 0.090 gr/dscf @ 8% O<sub>2</sub>, hourly average, and 0.063 gr/dscf @ 8% O<sub>2</sub>, 12-month rolling average; DOE Method 8.</p> <p><b>WAC 173-410-040(2)(a):</b> Particulate limit is 0.10 gr/dscf @ 8% O<sub>2</sub>; approved EPA or Ecology test methods.</p>	Permit imposes the more stringent 0.090/0.063 gr/dscf limits from the PSD/NOC approval.
H.3	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Opacity limit is 35% for &gt; 6 consec. minutes in any 60 min. period.</p> <p><b>WAC 173-410-040(3):</b> Opacity limit is 35% for more than 6 consecutive minutes in any 60 minute period.</p>	Both provisions impose the same requirement.
H.4	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> SO<sub>2</sub> limit is 10 ppm @ 7% O<sub>2</sub>, 24-hour avg.; EPA Method 6 or 6C.</p> <p><b>WAC 173-410-040(1)(d):</b> SO<sub>2</sub> limit is 800 ppm @ 7% O<sub>2</sub>, hourly avg.; approved EPA or Ecology test methods.</p>	Permit imposes 10 ppm limit, which is more stringent than and encompasses the 800 ppm limit (impossible to emit up to 800 ppm in one hour and still meet 10 ppm 24-hour avg. limit).

No. 3 Power Boiler (Emission Unit Specific Requirements, I.)

Limit #	Underlying Applicable Requirements – Cite and Paraphrase of Requirement	Basis for Consolidating
I.1	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Particulate limit (PM<sub>10</sub>) is 0.01 gr/dscf @ 7% O<sub>2</sub>, hourly average; EPA Method 5.</p> <p><b>40 CFR § 60.43b(c)(1):</b> No particulate matter in excess of 0.10 lb/million Btu heat input; EPA Method 5, 5B or 17.</p> <p><b>WAC 173-405-040(5)(b):</b> Particulate limit is 0.05 gr/dscf @ 7% O<sub>2</sub>; approved EPA or Ecology test methods.</p>	Permit uses the PSD/NOC approval limit of 0.01 gr/dscf, which is more stringent than the other two limits. WAC limit is in same terms and is less stringent. NSPS limit is approximately equivalent to 0.05 gr/dscf, which is less stringent.
I.3	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> Opacity limit is 20% for &gt; 6 consecutive minutes in any 60 minute period.</p> <p><b>40 CFR § 60.43b(f):</b> 20% opacity, 6-minute avg., except for one 6-minute period per hour of ≤ 27% opacity.</p> <p><b>WAC 173-405-040(6):</b> Opacity limit is 20% for &gt; 6 consecutive minutes in any 60 minute period, except uncombined water is only reason for opacity exceedance.</p>	Permit imposes the 20% limit from the PSD/NOC approval.
I.5	<p><b>PSD-88-3 Modification 2 &amp; DE-88-360 Modification 2:</b> NO<sub>x</sub> limit is 0.25 lb/MM BTU heat input, 30-day rolling average; monitor continuously using approved CEM conforming to 40 CFR § 60, App. B &amp; F, Perf. Spec. 2.</p> <p><b>40 CFR § 60.44b(d):</b> NO<sub>x</sub> limit is 0.30 lb/MM BTU; 30-day rolling average.</p>	Permit imposes the more 0.25 lb/MMBtu limit from the PSD/NOC approval.

## **APPENDIX E**

### **Glossary of Terms Used in the Air Operating Permit**

**Annual average.** In defining the averaging period of a particular limit, annual average means the calendar year average. Determining compliance with a limit with an annual average shall be based on the unit's operation for a calendar year.

**Calendar year average.** The calendar year average is the average value of a given parameter over the period beginning on January 1 and ending on December 31.

**Intermittent compliance.** For the purpose of annually certifying compliance, the Permittee is considered to be in intermittent compliance with a permit term or condition if it is not in continuous compliance with the permit term or condition during the annual certification period.

**Operating/in operation.** In operation means engaged in activity related to the primary design function of the source. For example, a straight recovery furnace is in operation only when combusting black liquor or red liquor, and a lime kiln is in operation only when feeding lime mud.

**Rolling Annual Average.** In defining the averaging period of a particulate emissions limit, the rolling annual average means the average of the emissions readings of the previous year leading up to the reporting date. For a rolling annual average limit with an associated monthly reporting requirement, the rolling annual average is a 12-month rolling average, calculated monthly. The need for this term is necessitated by the possibility of different reporting frequencies for a single emissions limit, based on the performance of the unit compared to the permit limit.

**60-minute period.** The period from the top of one hour to the top of the next hour (e.g., 07:00:00 to 07:59:59).

**Visual opacity assessment.** A visual opacity assessment as used in this permit, is the use of an observer trained in general procedures for determining visible emissions, which could include DOE Method 9B or EPA Method 9. A trained observer does not need to have current certification in Method 9B. Under normal conditions, a trained observer will be present at the facility, while a certified Method 9B observer is not always readily available.

## **APPENDIX F : Existing Orders and Permits**

PSD-88-3/Modification 2  
Order DE-88-360/Modification 2  
Order DE-96-AQ-I059  
Order DE-95-AQ-I050  
Order DE-93-AQ-I140  
Order DE-87-309